

**REMARKS**

**I. Formal Matters.**

Claims 1-8, 10-13 and 15-35<sup>1</sup> are currently pending in this application, of which claims 19-35 are withdrawn from consideration. Claims 9 and 14 were previously cancelled. Applicant appreciates the Examiner's consideration of the Information Disclosure Statement submitted on February 10, 2005, as evidenced by his return of an initialled Form PTO/SB/08 A&B to the office of the undersigned.

**II. 35 U.S.C. §102(b).**

The Examiner rejects claims 1, 3, 5-9, 11, 12 and 15 as allegedly being anticipated by *Kato, et al.* (U.S. Patent Publication No. 2001/019131) ("*Kato*") under 35 U.S.C. §102(b). Applicant respectfully traverses this rejection in view of the following remarks.

The Examiner maintains the rejection of claim 1, as being anticipated by *Kato*. Responding specifically, to the previously submitted amendment to claim 1, the Examiner asserts that *Kato* discloses a semiconductor layer of Ga/As/AlGaAs, wherein an AlGaAs layer is formed on GaAs layer (FOA page 4).

---

<sup>1</sup> Form PTOL-326 indicates that claims 1-13 and 15-35 are pending; however, claims 9 and 14 were cancelled via the Amendment filed May 20, 2005. Accordingly, the pending claims are 1-8, 10-13 and 15-35.

Claim 1 requires a semiconductor layer of GaAs/AlGaAs, wherein a GaAs layer is formed on an AlGaAs layer. *Kato* at paragraph [0202] and FIG. 30, reference numbers 510 and 511, discloses AlGaAs formed on GaAs.

*Kato* fails to disclose a third semiconductor layer comprising a GaAs layer formed on said AlGaAs layer as required by claim 1. At least for this deficiency, the rejection of claim 1 as being anticipated by *Kato* under 35 U.S.C. §102(b) should be withdrawn.

Claims 3, 5-9, 11, 12 and 15 are asserted as being patentable at least by virtue of their dependency upon an allowable claim.

### **III. Allowable Subject Matter.**

The Examiner objects to claims 2, 4, 10, 13 and 16-18 as being dependent upon a rejected base claim, but indicates that the same would be allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claims.

Claims 2, 4, 10, 13 and 16-18 are asserted as being in condition for allowance at least by virtue of their dependence upon an allowable claim.

In view of the foregoing amendments and remarks, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby earnestly solicited. If there are any points remaining in issue that the Examiner feels may be best resolved through a personal or telephonic interview, he is kindly requested to contact the undersigned at the local telephone number listed below.

AMENDMENT UNDER 37 C.F.R. §1.116  
U.S. SERIAL NO. 10/720,094

ART UNIT 2826  
Q78644

The USPTO is directed and authorized to charge any required fees (except the Issue/Publication Fees) to our Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

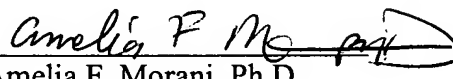
Respectfully submitted,

**SUGHRUE MION, PLLC**  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE

**23373**

CUSTOMER NUMBER

  
Amelia F. Morani, Ph.D.  
Registration No. 52,049

Date: September 16, 2005